Claims:

1. An isolated peptide which binds to an HLA-A2 molecule, said peptide consisting of ten amino acids, wherein the carboxy terminal amino acid is Val, the amino terminal amino acid is Ala, Tyr or Phe, and the second amino acid is Ala.

2. An isolated peptide which binds to an HLA-A2 molecule and consists of ten amino acids, said isolated peptide having Val at its carboxy terminus, Glu at its amino terminus, and the second and third amino acids from the N-terminus are Ala, Leu, or Met, with the proviso that when the second amino acid is Ala, the third amino acid must be Leu or Met, and when the third amino acid is Ala, the second amino acid must be Leu or Met.

3. The isolated peptide of claim 1, which has an amino acid sequence selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, and SEQ ID NO: 15.

4. The isolated peptide of claim 2, which has an amino acid sequence selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, and SEQ ID NO: 12.

5. An isolated cytolytic T cell line which specifically recognizes a complex of the isolated peptide of claim 1 and an HLA-A2 molecule.

6. An isolated cytolytic T cell line which specifically recognizes a complex of the isolated peptide of claim 2 and an HLA-A2 molecule.

7. A method for provoking proliferation of cytolytic T cells, comprising contacting a sample containing cytolytic T cells precursors with a complex of the isolated peptide of claim 1 and HLA-A2 molecules to provoke proliferation of any cytolytic T cell precursors specific to said complex into cytolytic T cells.

8. A method for provoking proliferation of cytolytic T cells, comprising contacting a sample containing cytolytic T cells precursors with a complex of the isolated peptide of claim 2 and HLA-A2 molecules to provoke proliferation of any cytolytic T cell precursors specific to said complex into cytolytic T cells.

9. Isolated nonapeptide consisting of an amino acid sequence selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8.

10. A method for determining presence of tumor infiltrating lymphocytes (TILs) in a tumor sample, comprising admixing said tumor sample with a sample of HLA-A2 positive cells and the isolated peptide of claim 1, and determining lysis of said HLA-A2 positive cells as a determination of TILs in said sample.

11. A method for determining presence of tumor infiltrating lymphocytes (TILs) in a tumor sample, comprising admixing said tumor sample with a sample of HLA-A2 positive cells and the isolated peptide of claim 2, and determining lysis of said HLA-A2 positive cells as a determination of TILs in said sample.

12. A method for determining presence of tumor infiltrating lymphocytes (TILs) in a tumor sample, comprising admixing said tumor sample with a sample of HLA-A2 positive cells and the isolated peptide of claim 9, and determining lysis of said HLA-A2 positive cells as a determination of TILs in said sample.

13. Isolated decapeptide consisting of the amino acid sequence set forth in SEQ ID NO: 3, SEQ ID NO: 23, or SEQ ID NO: 24.

14. Isolated decapeptide which has an amino acid sequence selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, and SEQ ID NO: 16.

15. A method for provoking proliferation of a cytolytic T lymphocyte which is reactive with a cell that presents, on its surface, a complex of an HLA-A2 molecule and a peptide which forms a non-covalent complex with said HLA-A2 molecule comprising contacting a sample containing said cytolytic T lymphocyte with a complex of an HLA-A2 molecule and a nonamer or decamer, wherein the carboxy terminal amino acid for said nonamer or decamer is Val, the amino terminal amino acid for said nonamer or decamer is Ala, Glu, Tyr, or Phe, and the second amino acid of said nonamer or decamer is Ala or Leu, so as to stimulate proliferation of cytolytic T cells which react with complexes of HLA-A2 and said nonamer or decamer, and at least one other complex of HLA-A2 and a second, different nonamer or decamer.

16. The method of claim 15, wherein said nonamer or decamer has Ala or Glu as its N-terminal amino acid.

17. The method of claim 15, wherein said monomer is the nonamer having the amino acid sequence of SEQ ID NO: 2.

18. The method of claim 15, wherein said decamer is the decamer having the amino acid sequence of SEQ ID NO: 1, 9, 15, or 16.